REMARKS

Summary Of Office Action

In the present application, claims 1-17, 19, and 63-67 remain pending, and claims 20-62 are withdrawn from consideration. In the Office Action mailed August 6, 2003, the Examiner rejected claims 1-3, 6, 8, 12, 14, 15, and 65-67 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,574,837 to Clark et al. ("Clark"); rejected claims 4 and 5 under 35 U.S.C. §103(a) as being obvious over Clark in view of U.S. Patent No. 5,671,381 to Strasnick et al. ("Strasnick"); rejected claims 7, 9-11, 16, 17, 19, 63 and 64 under 35 U.S.C. §103(a) as being obvious over Clark in view of the IEEE paper "On Encouraging Multiple Views for Visualization" by J.C. Roberts; and rejected claim 13 under 35 U.S.C. §103(a) over Clark in view of IEEE Pattern Analysis and Machine Intelligence, "Handwritten Word Recognition Using Segmentation- Free Hidden Markov Model and Segmentation-Based Dynamic Programming Techniques," by Magdi Mohamed et al.

Summary of This Response

In light of the following remarks, Applicants respectfully request the reconsideration and allowance of pending claims 1-17, 19, and 63-67.

Detailed Response

Rejections under 35 U.S.C. § 102(b)

Applicants respectfully traverse the rejections of claims 1-3, 6, 8, 14, 15, and 65-67 as being unpatentable under 35 U.S.C. §102(b), since the Examiner has not made a *prima facie* case of anticipation. In order to properly anticipate Applicants' claimed invention under 35 U.S.C. §102(b), a single prior art reference must teach each and every element of the claim in issue, either expressly, or under principles of inherency. Furthermore, "[t]he identical invention must

be shown in as complete detail as is contained in the claim." *See* M.P.E.P. §2131, quoting

Richardson v. Suzuki Motor Co., 868 F. 2d 1126, 1236 (Fed. Cir. 1989). Finally, "[t]he elements

must be arranged as required by the claim." M.P.E.P. §2131. Applicants submit that these

requirements have not been met for at least the following reasons.

Independent claim 1 recites a combination including, for example, "selecting a set of

attributes associated with an object, wherein the attributes selected comprise a plurality of data

types selected from a group consisting of a numerical data type, a text data type, a categorical

data type, and a sequence data type." The Examiner asserted that claim 1 is anticipated by <u>Clark</u>,

and, more specifically, asserted that "Code segments f_0, f_1, and f_2 are objects having attributes

identified by identifiers (I) and (T). The attributes are comprised on text data type (Relation,

Name) as well as numerical data types (Age))." *See* O.A. at p. 3. Applicants respectfully submit

that the Examiner's reasoning is flawed. While Applicants do not dispute that code segments, at

a functional level, require multiple data types, the <u>Clark</u> system, when comparing one code

segment to another, does so by treating all elements of the code segments as text. For example,

when comparing f_0, and f_1 in the Table at column 4, <u>Clark</u> compares the number of times the text

phrase "char*" or "int" appears. <u>Clark</u> does not treat "int" as an integer or numeric data type for

this comparison, but instead treats it as the text phrase "int." Accordingly, <u>Clark</u> discloses only

attributes of a single data type, and is insufficient to anticipate a combination including, for

example, "selecting a set of attributes associated with an object, wherein the attributes selected

comprise a plurality of data types selected from a group consisting of a numerical data type, a

text data type, a categorical data type, and a sequence data type," as recited in claim 1.

For these reasons, Applicants submit that the Examiner has failed to set forth a *prima facie* case of anticipation of claim 1 over the <u>Clark</u> reference. Applicants therefore respectfully request reconsideration and allowance of claim 1.

Independent claim 2 recites a combination including, for example, "defining a uniform data structure for representing objects of different data types." The Examiner asserted, for the reasons discussed above, that <u>Clark</u> discloses "different data types." While <u>Clark</u> does disclose "a browser interface for representing similarities between segments of code," (*See* Title) Applicants respectfully submit that the only objects represented using <u>Clark's</u> system are segments of code. Therefore, as all of the objects being represented are of the same type (i.e., code segments), <u>Clark</u> therefore is insufficient as a matter of law to anticipate combination including, at least "defining a uniform data structure for representing objects of different data types," as recited in claim 2. Accordingly, Applicants respectfully submit that claim 2, and claims 3, 6, 8, 14, and 15 by virtue of their dependence therefrom, are allowable.

Independent claims 65-67 recite combinations including, for example, "selecting a set of attributes associated with an object, wherein the attributes selected comprise a plurality of data types selected from a group consisting of a text data type, a numerical data type, a nominal or ordinal categorical data type, and a genomic sequence data type," (claim 65) "selecting a set of attributes associated with an object, wherein the attributes selected comprise a plurality of data types selected from a group consisting of a numerical data type, a nominal or ordinal categorical data type, and a genomic sequence data type," (claim 66) and "selecting a set of attributes associated with an object, wherein the attributes selected comprise a plurality of data types selected from a group consisting of a text data type, a nominal or ordinal categorical data type, and a genomic sequence data type," (claim 67). As discussed above, with regard to claim 1,

Clark discloses only a single data type (text), and therefore cannot anticipate claims 65-67.

Accordingly, Applicants respectfully request the allowance of claims 65-67.

Rejection under 35 U.S.C. § 103(a)

The rejections of claims 4-5, 7, 9-11, 13, 16, 17, 19, and 63-64 under 35 U.S.C. §103(a) are respectfully traversed because a *prima facie* case of obviousness has not been made by the Examiner. To establish a *prima facie* case of obviousness under 35 U.S.C. §103(a), each of three requirements must be met. First, the references, taken alone or in combination must disclose or suggest each and every element recited in the claims. Second, there must be some suggestion or motivation, either in the references themselves, or in the knowledge generally available to one of ordinary skill in the art, to combine the references in a manner resulting in the claimed invention. Third, a reasonable expectation of success must exist. Moreover, each of these requirements must "be found in the prior art, and not be based on the applicant's disclosure." (*See* M.P.E.P. §2143) Applicants submit that these requirement have not been met for the following reasons.

Claims 4 and 5, by virtue of their dependence from claim 2, each recite a combination including, for example, "defining a uniform data structure for representing objects of different data types." With respect to claim 4, the Examiner admitted, and Applicants agree, that "Clark et al do not explicitly disclose the method of claim 3 wherein said plurality of different data types comprise a combination of any three of numeric, reference string, categorical, and text data types." (*See* O.A. at p.6.) Furthermore, with respect to claim 5, the Examiner admitted, and Applicants agree, that "Clark et al do not explicitly disclose the method of claim 4 wherein said data types comprise numeric, sequence string, categorical, and text data." Instead, the Examiner asserted, with respect to claim 4, that "Strasnick et al disclose a method for visualization of

different data types comprising a combination of numeric, reference string, categorical, and in [sic] text data types." (*See* O.A. p.6.) Applicants respectfully traverse the Examiner's interpretation of <u>Strasnick et al.</u>

Applicants respectfully submit that because <u>Clark</u>, as discussed above regarding claim 1, discloses only a single data type, it therefore cannot disclose "defining a uniform data structure for representing objects of different data types." Furthermore, Strasnick does not cure this deficiency. Whether or not <u>Strasnick</u> discloses "a method for visualization of different data types," it does not disclose or suggest at least "defining a uniform data structure for representing objects of different data types." While <u>Strasnick</u> may show drawings or figures including some combination of textual, numeric, or other data, nowhere does <u>Strasnick</u> disclose "defining a uniform data structure for representing objects of different data types," as claimed. Therefore, nothing in <u>Clark</u> or <u>Strasnick</u> gives a reasonable expectation of success, or otherwise provides the proper motivation for modifying <u>Clark</u> to include defining a uniform data structure. <u>Strasnick</u> therefore fails to cure the admitted deficiencies of <u>Clark</u>. Accordingly, no combination of <u>Clark</u> and <u>Strasnick</u> disclose or suggest a combination including "defining a uniform data structure for representing objects of different data types." Applicants respectfully request the reconsideration and allowance of claims 4 and 5.

Dependent claims 7, and 9-11, by virtue of their dependence from independent claim 2, each recite a combination including, for example, "defining a uniform data structure for representing objects of different data types." For the reasons described above, Applicants respectfully submit that <u>Clark</u> discloses only a single data type, and cannot therefore disclose or suggest at least "different data types." Applicants further submit that the J.C. Roberts IEEE paper does not cure this deficiency. Instead, J.C. Roberts describes techniques involving "different

ways of looking at the same information," (p.1) and is silent as to the data type of data

visualized. Accordingly, it does not disclose or suggest "objects of different data types," nor

does it disclose or suggest "defining a uniform data structure for representing objects of different

data types." As a matter of law, the combination of J.C. Roberts and <u>Clark</u> cannot therefore

render claims 7 and 9-11 obvious. Accordingly, Applicants request the rejection of these claims

under 35 U.S.C. §103(a) be withdrawn, and the claims allowed.

Independent claim 16 recites a combination including, for example, "displaying first

graphical results of a first type analysis performed on selected attributes of a first data set,

wherein the selected attributes comprise a plurality of data types." For the reasons described

above, Applicants respectfully submit that <u>Clark</u> discloses only a single data type, and cannot

therefore disclose or suggest at least "a plurality of data types." Applicants further submit that

the J.C. Roberts IEEE paper does not cure this deficiency. Instead, J.C. Roberts describes

techniques involving "different ways of looking at the same information," (p.1) and is silent as to

the type of data visualized. Accordingly, it does not disclose or suggest "a plurality of data

types." Accordingly, Applicants submit that J.C. Roberts and <u>Clark</u> does not render obvious the

combination recited in claim 16. Furthermore, Applicants submit that dependent claim 17 is also

allowable, at least by virtue of its dependence from allowable claim 16. Accordingly, Applicants

request the rejection of these claims under 35 U.S.C. §103(a) be withdrawn, and the claims

allowed.

Independent claim 19 recites a combination including, for example, "different types of

data," "a first processing engine operative to modify a first type of data," and a second

processing engine for creating a first high dimensional vector for a second type of data." For the

reasons described above, Applicants respectfully submit that <u>Clark</u> discloses only a single data

type, and cannot therefore disclose or suggest at least "different types of data." Applicants

further submit that the J.C. Roberts IEEE paper does not cure this deficiency. As explained, J.C.

Roberts concerns only "different ways of looking at the same information," (p.1) and is silent as

to the type of data visualized. Accordingly, it does not disclose or suggest at least, "different

types of data," "a first processing engine operative to modify a first type of data," and a second

processing engine for creating a first high dimensional vector for a second type of data," as

recited in claim 19. Accordingly, Applicants submit that the Examiner has failed to set forth a

prima facie case of obviousness of claim 19 over J.C. Roberts and <u>Clark</u>, and request timely

allowance of the claim.

Dependent claims 12 and 13, by virtue of their dependence from claim 2, each recite a

combination including, for example, "defining a uniform data structure for representing objects

of different data types." For the reasons discussed above with regard to independent claim 2,

from which claims 12 and 13 depend, <u>Clark</u> does not disclose this element. Applicants submit

that the Magdi Mohamed IEEE article ("Mohamed") does not cure this deficiency. While

Mohamed does disclose sequences, it does not disclose "different data types." Furthermore,

while the combination of Mohamed and <u>Clark</u> would indicate that multiple data types exist,

nothing in the references suggests modifying them to include "defining a uniform data structure

for representing objects of different data types," or indicates a reasonable expectation of success

of such a combination. Accordingly, because the Examiner has failed to set forth a *prima facie*

case of obviousness, Applicants respectfully request the allowance of claims 12 and 13.
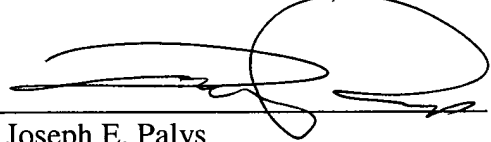
Conclusion

In light of the foregoing amendments and remarks, Applicants respectfully request the timely reconsideration and allowance of pending claims 1-17, 19, and 63-67.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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Dated: November 6, 2003

By:_____

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